

Listing of all Pesticides Reviewer Recommendations

Directives, Manuals and Operating Procedures (DMP)

- 1 WS Directive 2.410 Pesticide Use
 - Pesticide storage should be defined as incidental, small, or large. Incidental storage areas should not be defined as pesticide storage areas with regard to inspections, storage requirements, and other items mentioned in this directive.
 - The directive should require that in significant events, the completed forms must also be sent to SHEWB to determine if further investigation is required. Significant events can be defined as those events requiring employees to miss three or more days of work, those accidents requiring long-term medical attention, or those events in which one or more people are killed. However, any event involving a none-WS employee is considered significant.
 - WS should consider adopting the Worker Protection Standards (WPS) requiring all applicators carry at least one quart of water, coveralls (they could be one-use, disposable overalls), a towel, and soap in case the applicator splashes some pesticide on themselves, especially in their eyes.
- 2 WS Directive 2.415 M-44 Use and Restrictions
 - It is critical that the M-44 mechanisms be easily and thoroughly cleaned to prevent accidental injector activation. The newer type of mechanisms (Type 4 produced 2002 to present – no bottom crimp; a retaining pin holds plunger and ejector spring in place—the pin permits field disassembly for cleaning, lubrication or replacement of inner parts) should be used.
 - The district supervisors should examine all M-44 devices in the applicator's possession, identify the old-type devices for recycling, and ensure the policy states that only new mechanisms are to be used.
 - Sodium cyanide reacts with acid, oxidizers and heat to form dangerous byproducts. Sodium cyanide reacts with both acid (even very weak acid) and water (moisture) to produce hazardous hydrogen cyanide gas. Sodium cyanide readily absorbs carbon dioxide and moisture from the air and deliquesces (to absorb atmospheric water vapor and become liquid). The practice of using vinegar and water to clean the devices should be studied to ensure proper protocols and safe-guards are implemented. The amount of debris left on the injector device may be minimal, even non-existent, but because of the potential severity of the process, it must be closely evaluated. If the evaluation indicates no significant risk, the protocol should be shared with all employees and made part of the Technical Bulletin.

Management and Administration (MA)

- 1 The accident investigation program should be strengthened to provide an accurate assessment of a significant event, so that adequate preventive methods can be implemented to prevent any recurrence. Those significant events must be first identified as significant, then reported to the appropriate authority in an

expeditious manner, and finally, investigated as close as possible to the time of occurrence. Significant events must be elevated up the management structure to ensure that an unbiased, professional evaluation can be conducted.

- 2 Pesticide storage should be clearly defined in the directives as incidental, small, or large. Incidental storage areas should not be defined as pesticide storage areas with regard to inspections, storage requirements, and other items mentioned in any directives.

Training Program (TP)

- 1 Produce several short, pesticide specific, i.e., M-44, LPC 1080, DRC-1339, safety training programs that can be placed on the WS Intranet and be copied to a DVD for distribution to remote locations not having high-speed internet service. These 15 minute productions should be used for various training sessions, such as during the monthly training requirement mentioned in the following training plan.

These video learning tools should be short (15-20 minutes each), should be pesticide-or process-specific, and their major emphasis should be on safety. The video should show actual applicators “out in the field,” demonstrating the proper precautions (eye protection, glove, wind-direction, etc.) and identify when the application is at the most dangerous point, i.e., do not place face over M-44 device, stay upwind, have strong gloves; for DRC-1339 or zinc phosphide concentrate, when mixing small quantities, always mix in a closed container and let the dust and aerosols settle before opening; for aluminum phosphide, in rare instances the dust inside the air-tight container may spontaneously ignite if damp—do not cover—since confinement in this instance can cause an explosion. The aforementioned instances are only a few safety issues that should be demonstrated. The videos could include the following topics:

- safe use of M-44's,
- safe use of LPC collars,
- safe use and mixing of DRC-1339 concentrate,
- safe use and mixing of zinc phosphide,
- safe use of aluminum phosphide,
- need for participation in an OMMP,
- different types of gloves and eyewear that protect you from different pesticides,
- when respirators are to be used and their limitations,
- disposal of pesticides and spent containers, and
- storing and securing pesticides.

Equipment, Facilities and Maintenance (EFM)

- 1 It is critical that the M-44 mechanisms be easily and thoroughly cleaned to prevent accidental injector activation. The newer type of mechanisms Type 4 produced 2002 to present – no bottom crimp; a retaining pin holds plunger and ejector spring in place—the pin permits field disassembly for cleaning, lubrication or replacement of inner parts) should be used. The district

supervisors should examine all M-44 devices in the applicator's possession, identify the old-type devices for recycling, and ensure the policy states that only new mechanisms are to be used. In addition, the cleaning technique of using vinegar and water to clean the mechanisms mentioned in section 4, page 12 or this document should be further evaluated.

- 2 All applicators must carry at least one quart of water, coveralls (they could be one-use, disposable overalls), a towel, and soap in case the applicator splashes some pesticide on themselves, especially in their eyes.